

Notification about the transfer of the semiconductor business

The semiconductor business of Panasonic Corporation was transferred on September 1, 2020 to Nuvoton Technology Corporation (hereinafter referred to as "Nuvoton"). Accordingly, Panasonic Semiconductor Solutions Co., Ltd. became under the umbrella of the Nuvoton Group, with the new name of Nuvoton Technology Corporation Japan (hereinafter referred to as "NTCJ").

In accordance with this transfer, semiconductor products will be handled as NTCJ-made products after September 1, 2020. However, such products will be continuously sold through Panasonic Corporation.

Publisher of this Document is NTCJ.

If you would find description "Panasonic" or "Panasonic semiconductor solutions", please replace it with NTCJ.

※ Except below description page

"Request for your special attention and precautions in using the technical information and semiconductors described in this book"

Nuvoton Technology Corporation Japan

□ MN101E34 Series

Type	MN101EF34D
Internal ROM type	FLASH
ROM (byte)	64K+4K
RAM (byte)	4K
Package (Lead-free)	TQFP048-P-0707B
Minimum Instruction Execution Time	0.042 μ s (at 2.2 V to 5.5 V, 24 MHz) 62.5 μ s (at 2.2 V to 5.5 V, 32 kHz)

■ Interrupts

RESET. Watchdog. External 0 to 4. External 5 (key interrupt dedicated). External 6. Timer 0 to 4. Timer 6. Timer 7 (2 systems). Timer 8 (2 systems). Timer 9 (2 systems). Time base. Serial 1 (2 systems). Serial 2 (2 systems). Serial 4 (2 systems). A/D conversion finish

■ Timer Counter

8-bit timer \times 6

Timer 0Square-wave output. PWM output. Event count. Simple pulse width measurement. Square-wave/PWM output to large current terminal P03 (TM0IOB) possible

Timer 1Square-wave output. Event count

Timer 2Square-wave output. PWM output. Event count. Simple pulse width measurement. Square-wave/PWM output to large current terminal P03 (TM2IOB) possible

Timer 3Square-wave output. Event count

Timer 4Square-wave output. PWM output. Event count. Simple pulse width measurement. Square-wave/PWM output to large current terminal P02 (TM4IOC) possible

Timer 68-bit freerun timer

Timer 0, 1 can be cascade-connected

Timer 2, 3 can be cascade-connected

Timer 0, 1, 2 can be cascade-connected

Timer 0, 1, 2, 3 can be cascade-connected

16-bit timer \times 3

Timer 7Square-wave output. PWM output (cycle/duty continuous variable). Event count. Pulse width measurement. Input capture. Square-wave/PWM output to large current terminal P00 (TM7IOB) possible

Timer 8Square-wave output. PWM output (cycle/duty continuous variable). Event count. Pulse width measurement. Input capture. Square-wave/PWM output to large current terminal P01 (TM8IOB) possible

Timer 9Square-wave output. PWM output (cycle/duty continuous variable). Event count. Pulse width measurement. Input capture

Time base timer: One-minute count setting

Watchdog timer \times 1

■ Serial interface

Synchronous type/UART (full-duplex) \times 2: Serial 1, 2

Synchronous type/Multi-master I²C \times 1: Serial 4

Serial 4.....7-bit/10-bit address setting. General call

■ I/O Pins

I/O 39 : Common use. Specified pull-up resistor available. Input/output selectable (bit unit)

■ A/D converter

10-bit \times 8 channels (with S/H)

■ Extended Calculation

16-bit \times 16-bit multiplication. 32-bit / 16-bit division

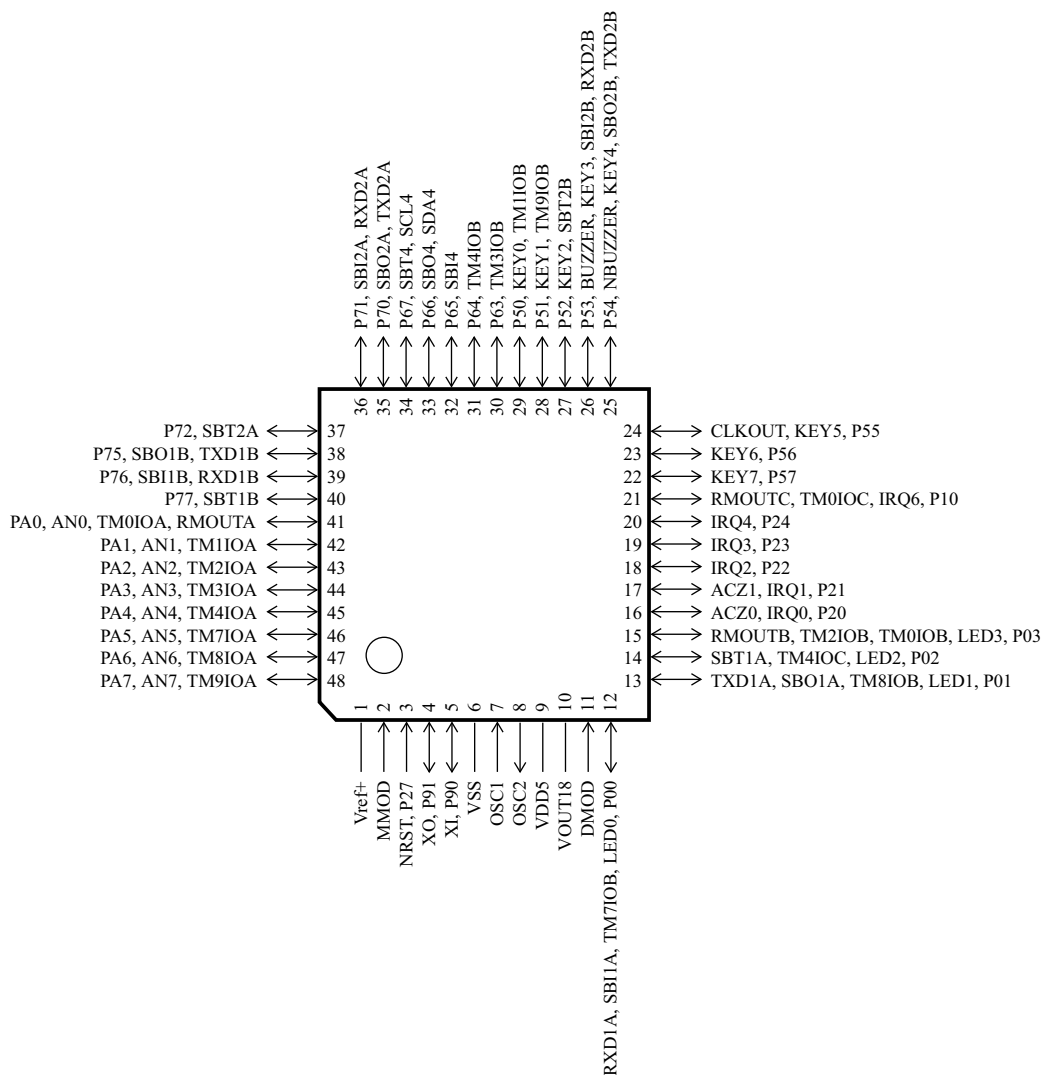
■ Special Ports

Buzzer output. Remote control carrier output. High-current drive port. Clock output

■ ROM Correction

Correcting address designation: Up to 7 addresses possible

■ Pin Assignment
TQFP048-P-0707B



Request for your special attention and precautions in using the technical information and semiconductors described in this book

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Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.
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